

**REMARKS**

Claims 1-21 and 45-66 are pending in this application.

In the Office Action dated October 4, 2004, the Examiner objected to the Title and Abstract of the Disclosure. In addition, the Examiner rejected claims 1-21 and 45-66. In particular, claims 11, 51-54, and 59-61 were rejected under 35 U.S.C. § 112 ¶ 2 as being indefinite. The Examiner also rejected claims 1-2 and 15-17 under 35 U.S.C. § 102(b) as being anticipated by EP 1 005 978 A2. In addition, claims 1-2, 4-5, and 15-17 were rejected under 35 U.S.C. § 102(b) as being anticipated by EP 0 786 330 A2. The Examiner also rejected claims 1-5, 12, 14-21, 45, 46, 57, 58, and 62-66 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,638,466 B1 ("Abbott") in view of EP 0 786 330 A2. Additionally, claims 6-8, 11, 47-52, and 59-61 were rejected under 35 § U.S.C. 103(a) as being unpatentable over Abbott in view of EP 0 786 330 A2 and in further view of EP 1 005 978 A2. The Examiner also rejected claims 6, 7, and 11 under 35 U.S.C. § 103(a) as being unpatentable over EP 0 786 330 A2 in view of EP 1 005 978 A2. In addition, the Examiner rejected claims 9-10 and 53-55 under U.S.C. § 103(a) as being unpatentable over Abbott in view of EP 0 786 330 A2 and in further view of EP 1 005 978 A2 and U.S. Patent No. 6,692,681 B1 ("Lunde"). The Examiner also rejected claims 9 and 53 under 35 U.S.C. § 103(a) as being unpatentable over Abbott in view of EP 0 786 330 A2 and in further view of EP 1 005 978 A2 and U.S. Patent No. 5,023,041 ("Jones et al."). Additionally, claims 54-56 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Abbott in view of EP 0 786 330 A2 and in further view of EP 1 005 978 A2, Jones et al., and

Lunde. Finally, claim 13 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Abbott in view of EP 0 786 330 A2 and in further view of Lunde.

As indicated above, Applicants have amended the Title, Abstract, and claims 1, 7, 16, 17, 45, 50, 59-61, and 63. In addition, Applicants have canceled claims 4-6, 11, 47-49, and 51. Finally, Applicants have added new claims 101-103. No new matter has been added by this amendment.

#### **Objection to Title**

Applicants have amended the Title in accordance with the Examiner's suggestion. Therefore, Applicants respectfully request that this objection be withdrawn.

#### **Objection to Abstract**

Applicants have amended the Abstract to describe a process embodiment as suggested by the Examiner. Therefore, Applicants respectfully request that this objection be withdrawn.

#### **Rejection of Claims 11, 51-54, and 59-61 under § 112 ¶ 2**

The Examiner rejected claims 11, 51-54, and 59-61 as being indefinite for claiming the curing of a "thermoplastic barrier layer." (Office Action at 3.) The claims as amended no longer include this limitation. Therefore, the rejection with respect to these claims is now moot, and Applicants respectfully request that this objection be withdrawn.

#### **Rejection of Claims 1, 2, and 15-17 under § 102(b) over EP 1 005 978 A2**

In order to anticipate claims 1, 2, and 15-17, EP 1 005 978 A2 must disclose each and every element of the rejected claims. MPEP § 2131 (8th Ed., revised May 2004). As indicated above, Applicants have amended claim 1 (from which claims 2 and

15-17 depend). Because EP 1 005 978 A2 does not disclose every element of these claims as amended, Applicants respectfully request that the Examiner withdraw this rejection.

Specifically, EP 1 005 978 A2 does not disclose “applying a thermoplastic barrier layer on at least one of the first side and the second side of the core section” as required by claims 1, 2, and 15-17. EP 1 005 978 A2 discloses only the application of a thermosetting adhesive film or thermosetting resin film directly to a core to seal the core. *Id.* at ¶¶ 8-9, 14-18. The Office Action does not identify anything in EP 1 005 978 A2 that could be allegedly equated with a thermoplastic barrier layer.

In addition, EP 1 005 978 A2 also does not disclose “applying a support layer between the core section and the adhesive layer” as required by claims 1, 2, and 15-17. In EP 1 005 978 A2, a thermosetting adhesive or resin film is applied directly to a core. EP 1 005 978 A2 does not disclose any support layer between the adhesive layer and the core.

Applicants respectfully disagree with the Examiner’s assertion that the thermosetting resin film 3a disclosed in EP 1 005 978 A2 “acts as a support layer” (Office Action at 7). Nothing in the cited reference provides any basis for that assertion. For example, film 3a is an adhesive thermosetting film and is not described as providing support.

Because EP 1 005 978 A2 does not disclose every element of the claims as amended, Applicants respectfully request that Examiner withdraw the rejection of claims 1, 2, and 15-17.

**Rejection of Claims 1, 2, 4, 5 and 15-17 under § 102(b) over EP 0 786 330 A2**

Applicants also respectfully request that the Examiner withdraw the rejection of claims 1, 2, 4, 5, and 15-17 over EP 0 786 330 A2. Applicants have amended claim 1 (from which claims 2, 4, 5, 15-17 depend). EP 0 786 330 A2 does not disclose every element of these claims as amended. Specifically, EP 0 786 330 A2 does not disclose “applying a support layer between the core section and the adhesive layer.” (Office Action at 7).

Because EP 0 786 330 A2 does not disclose every element of the claims as amended, Applicants respectfully request that Examiner withdraw the rejection of claims 1-2, 4-5, and 15-17.

**Rejection of Claims 1-5, 12, 14-21, 45, 46, 57, 58, and 62-66 under § 103(a)**

To establish a *prima facie* case of obviousness under § 103(a), the MPEP requires that the Examiner demonstrate (1) some suggestion or motivation to modify the reference or combine reference teachings; (2) a reasonable expectation of success; and (3) that the prior art references teach or suggest all the claim limitations. MPEP § 2142 (8th Ed., revised May 2004). Applicants have amended claim 1 (from which claims 2, 3, 12, and 14-21 depend) and claim 45 (from which claims 46, 57, 58, and 62-66 depend) and canceled claims 4 and 5. Because neither Abbott nor EP 0 786 330 A2 teaches or suggests all the limitations of claims 1-3, 12, 14-21, 45, 46, 57, 58, and 62-66 as amended, Applicants respectfully request that the Examiner withdraw this rejection.

All of the rejected claims now require “applying a support layer between the core section and the adhesive layer.” Neither Abbott nor EP 0 786 330 A2 teach or suggest this limitation. (Office Action at 7). Therefore, the rejection of claims 1-3, 12, 14-21, 45-

46, 57-58, and 62-66 over Abbott in view of EP 0 786 330 A2 should be withdrawn because these references do not teach or suggest all the claim limitations.

**Rejection of Claims 6-8, 11, 47-52, and 59-61 under § 103(a)**

Applicants have amended claim 1 (from which claims 7 and 8 depend) and claim 45 (from which claims 50, 52 and 59-61 depend) and canceled claims 6, 11, 47-49 and 51. In light of these amendments, Applicants respectfully request that the Examiner withdraw the § 103(a) rejection of claims 7, 8, 50, 52, and 59-61 as obvious over Abbott in view of EP 0 786 330 A2 and EP 1 005 978 A2 because none of the cited references teaches or suggests all the claim limitations.

Claims 7,8, 50, 52, and 59-61 now recite “applying a support layer between the core section and the adhesive layer.” As previously discussed, neither Abbott nor EP 0 786 330 A2 teaches or suggests this limitation. In addition, as also discussed above, EP 1 005 978 A2 does not teach application of a support layer, but rather teaches only application of a thermosetting resin film. Moreover, a thermosetting resin film cannot be equated with a support layer. EP 1 005 978 A2 discusses only sealing a core and does not provide any suggestion of including a support layer. Therefore, the rejection of claims 7, 8, 50, 52, and 59-61 is improper because these references do not teach or suggest all the claim limitations.

**Rejection of Claims 6-7 and 11 under § 103(a)**

Applicants have amended claim 1 (from which claim 7 depends) and canceled claims 6 and 11. In light of this amendment, Applicants respectfully request that the Examiner withdraw the § 103(a) rejection of claim 7 based on EP 0 786 330 A2 in view of EP 1 005 978 A2 because none of the cited references teaches or suggests all the

claim limitations. All of the rejected claims require “applying a support layer between the core section and the adhesive layer.” As discussed above, neither EP 0 786 330 A2 nor EP 1 005 978 A2 teaches or suggests this subject matter. Therefore, Applicants respectfully request that the Examiner withdraw this rejection.

**Rejection of Claims 9, 10 and 53-55 under § 103(a)**

Applicants have amended claim 1 (from which claims 9 and 10 depend) and claim 45 (from which claims 53-55 depend). In light of these amendments, Applicants respectfully request that the Examiner withdraw the rejection of claims 9, 10 and 53-55 based on Abbott in view of EP 0 786 330 A2 and in further view of EP 1 005 978 A2 and Lunde because none of the cited references teach or suggest all the claim limitations.

All of the rejected claims require “applying a support layer between the core section and the adhesive layer.” As previously discussed, neither Abbott nor EP 0 786 330 A2 nor EP 1 005 978 A2 teaches or suggests this subject matter. In addition, Lunde also does not teach the application of a support layer. Lunde mentions the use of honeycomb core in a sandwich composite structure, but does not teach or suggest sealing the core let alone the application of a support layer between the core and an adhesive layer. (Col. 6-7). Moreover, the Examiner has not pointed to any subject matter in Lunde fro any alleged teaching of a support layer. Therefore, the rejection of claims 9, 10, and 53-55 is improper because these references do not teach or suggest all the claim limitations.

**Rejection of Claims 9 and 53 under § 103(a)**

In light of the amendments to the claims from which claims 9 and 53 depend, Applicants also believe that the § 103(a) rejection of claims 9 and 53 over Abbott in view

of EP 0 786 330 A2 and in further view of EP 1 005 978 A2 and Jones et al is improper. Specifically, a *prima facie* case of obvious has not been demonstrated because none of the cited references teaches or suggests all the claim limitations.

Claims 9 and 53 both require “applying a support layer between the core section and the adhesive layer,” and, as has been previously discussed, neither Abbott nor EP 0 786 330 A2 nor EP 1 005 978 A2 teaches or suggests this subject matter. Jones et al. also does not teach the application of a support layer. Moreover, the Examiner has not pointed to any subject matter in Jones et al. for any alleged teaching of a support layer. In fact, Jones et al. does not even teach the use of core in forming a composite structure. Therefore, this rejection is improper and Applicants respectfully request that it be withdrawn.

**Rejection of Claims 54-56 under § 103(a)**

In light of the amendments to the claims from which claims 54-56 depend, Applicants also believe that the rejection of claims 54-56 as obvious based on Abbott in view of EP 0 786 330 A2 and in further view of EP 1 005 978 A2, Jones et al. and Lunde is improper. Claims 54-56 require “applying a support layer between the core section and the adhesive layer.” As previously discussed, Abbott, EP 0 786 330 A2, EP 1 005 978 A2, Jones et al., and Lunde do not teach or suggest this subject matter. Therefore, since, a *prima facie* case of obvious has not been demonstrated, Applicants respectfully request that this rejection be withdrawn.

**Rejection of Claim 13 under § 103(a)**

In light of the amendments to the claims from which claim 13 depend, Applicants also believe that the rejection of claim 13 based on Abbott in view of EP 0 786 330 A2

and in further view of Lunde is improper. Claim 13 also requires “applying a support layer between the core section and the adhesive layer,” and, as previously noted, Abbott, EP 0 786 330 A2, and Lunde do not teach or suggest this step. Therefore, since a *prima facie* case of obvious has not been demonstrated, Applicants respectfully request that this rejection be withdrawn.

**New Claims 101-103**

Claims 101-103 are also allowable for at least the reasons discussed above. Specifically, none of the cited references teach or suggest “applying a support layer between the core section and the adhesive layer.” In addition, with respect to claim 103, none of the references cited by the Examiner teach or suggest the additional limitation of this claim. In particular, the thermosetting film 3a of EP 1 005 978 A2 does not provide a vacuum path because it is applied directly to the core. Therefore, it directly seals the core and would not allow for a vacuum path. Thus, Applicants respectfully request allowance of claims 101-103.

In view of the foregoing amendments and remarks, Applicant respectfully requests reconsideration of this application, withdrawal of the objections and rejections, and the timely allowance of the pending claims.



Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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